

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1, 18, 24, and 38 have been amended. Claims 17 and 21 have been cancelled.

Claims 1-16, 18-20, and 22-43 are pending and under consideration.

Claims 8, 15, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

REJECTION UNDER 35 U.S.C. §112:

Claims 22 and 23 are rejected under 35 U.S.C. § 112, second paragraph for lack of antecedent basis. Claim 1 has been amended to overcome the lack of antecedent basis rejection.

REJECTION UNDER 35 U.S.C. §102:

Claims 1, 2, 7, 12-14, 22-25, 33, 34, 38-40, 41, and 43 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Dalpane (U.S. Patent No. 4,788,999). Claim 1 has been amended to include "a movable hinge accommodating part combined to the lid, having a movable hinge hole, which is provided approximately parallel to the rotation axis of the lid; a movable hinge shaft accommodated in the movable hinge hole, rotatably combined with the first end of the lifting member." On page 6 of the Office Action, the Examiner identifies reference numeral 41 as the movable hinge shaft. We disagree. Dalpane describes reference numeral 41 as "mounted a pin 41 with the end 42 of the rod 243 of piston 43 of operating cylinder 40 hinged thereto." However, there is nothing in Dalpane to teach or suggest that the pin is a movable hinge with a movable hinge shaft. Dalpane discusses that the pin is mounted. Dalpane does not teach or suggest a movable hinge shaft.

Dalpane fails to teach or suggest a movable hinge hole. As discussed above, Dalpane fails to teach or suggest a movable hinge shaft. There is nothing to suggest that the mounted pin 41 is connected to a movable hinge hole. As shown in FIG. 1 of Dalpane, the mounted pin 41 is part of a support 32 that also houses the locking means including check pins 30. The mounted pin 41 appears to be fixed as part of the locking means. Therefore, Dalpane does not teach or

suggest a movable hinge hole.

With regard to claim 43, there is nothing to teach or suggest in Dalpane "a lid rotation system that positions the lid approximately parallel to the sealing member, to ease creation of a vacuum in the reaction chamber." Dalpane fails to teach or suggest a movable hinge accommodating part combined to the lid, having a movable hinge hole, which is provided approximately parallel to the rotation axis of the lid or a movable hinge shaft accommodated in the movable hinge hole, rotatably combined with the first end of the lifting member. Therefore, without the feature of a movable hinge accommodating part with a movable hinge hole, Dalpane cannot teach or suggest a lid rotation system that positions the lid approximately parallel to the sealing member because the hinges 21 shown in Dalpane are fixed and do not allow for the lid to be approximately parallel to the sealing member.

REJECTION UNDER 35 U.S.C. §103:

Claims 3, 5, 16-21, and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dalpane in view of Suzuki (U.S. Patent No. 6,067,667). The Examiner acknowledged on page 5 that Dalpane does not teach nor describe the use of a location sensor or a controller to drive the motor or actuator in response to the signal from the location sensor. On page 5 of the Office Action, the Examiner asserts that Suzuki makes up for the deficiencies of Dalpane. The teachings of Suzuki are directed to a non-analogous art because Suzuki describes a semi-automatic toilet operator and toilet bowl seat. Suzuki's invention is not directed to a reaction chamber. Suzuki also fails to teach or suggest a vacuum condition when the lid is closed. The Examiner discusses that Dalpane and Suzuki are non-analogous art stating, "Dalpane and Suzuki seem to be classified in different arts." The teachings of Suzuki would not apply to Dalpane because Dalpane is related to an automatic servo-controlled valve with high-speed opening and locking means to keep the cover in a locked position.

The present invention relates to a reaction apparatus having a driver with a driving motor, a location sensor, and a controller that controls the driving motor by receiving information from the location sensor. The present invention has a motion converter that converts the rotational movement of the driving motor into linear motion of the lifting member. Suzuki's teaching relates to a sensor that activates the motor after a predetermined length of time (col. 3, lines 28-38). Suzuki does not teach or suggest "a controller controlling the driving motor with a signal transmitted from the location sensor." Therefore, Suzuki cannot be relied upon to cure the deficiencies of Dalpane.

On page 6, the Examiner asserts that Dalpane teaches the features of claims 16-21. Claim 17 has been canceled and its features have been incorporated into independent claim 1 to overcome 35 U.S.C. § 112, 1st paragraph rejection. As stated above, Dalpane does not teach or suggest a movable hinge hole or movable hinge shaft. Dalpane shows hinges (21) in FIG. 1. However, there is nothing in Dalpane to teach or suggest that the pin is a movable hinge with a movable hinge shaft.

On page 7, claims 4, 6, and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dalpane and Suzuki and further in view of Lei et al. (6,050,446). The Examiner admits that Dalpane “does not explicitly describes having an additional lifting member at opposite sides of the main body.” The Examiner argues that Lei et al. depicts a pair of lifting members at opposite sides of the main body. Lei, like Dalpane, fails to teach or suggest “a movable hinge accommodating part combined to the lid, having a movable hinge hole, which is provided approximately parallel to the rotation axis of the lid; a movable hinge shaft accommodated in the movable hinge hole, rotatably combined with the first end of the lifting member.” Lei is directed to a pivoting lid, not a rotatable lid. Dalpane is directed to a valve with locking means to keep the cover in a locked position. Dalpane fails to teach or suggest a movable hinge accommodating part with a movable hinge hole and a movable hinge shaft. Therefore, Lei fails to cure the deficiencies of Dalpane.

NEW CLAIM 44:

New claim 44 recites that the features of the present invention include “A lifting member for a reaction apparatus, comprising: a driver with a driving motor; a motion converter disposed between the driving motor and the lifting member where the motion converter converts a rotational movement of the driving motor into linear movement of the lifting member; a plurality of sensors; and a controller controlling the driving motor by receiving information from the lifting member from a location of the sensors.” Nothing in the prior art teaches or suggests such. It is submitted that these new claims, which are different and not narrower than prior filed claims distinguishes over the prior art.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.


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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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